

What is Claimed is:

1. A vehicle rim for supporting a tire of a vehicle, comprising:

a rim body comprising a hub adapted for rotatably connecting to the vehicle, and a tire locking frame, having a U-shaped cross section, coaxially mounted with said hub, wherein said tire locking frame has an outer circumferential wall and two locking flanges radially extended from two side edges of said outer circumferential wall for substantially interlocking with two beads of said wheel tire respectively, in such a manner that said rim body is adapted for coaxially and securely mounting to said wheel tire under a safety pressure so as to substantially support a tread of said wheel tire to run on a road surface; and

a safety rim, having a running surface, radially and outwardly extended from said rim body, wherein a circumference of said safety rim is larger than a circumference of each of said locking flanges of said tire locking frame and is smaller than a circumference of said tread of the wheel tire, such that said safety rim functions as a safety wheel to support said rim body for running said running surface on said road surface when said wheel tire is popped out from said rim body.

2. The vehicle rim, as recited in claim 1, wherein said safety rim is radially and outwardly extended from said outer circumferential wall between said two locking flanges, wherein said running surface of said safety rim is coaxially positioned between a top edge of each of said locking flanges and said tread of said wheel tire.

3. The vehicle rim, as recited in claim 2, wherein said running surface of said safety rim is a rounded surface adapted for substantially supporting said vehicle rim to run on said road surface when said wheel tire is popped out from said rim body.

4. The vehicle rim, as recited in claim 1, wherein said safety rim is integrally extended from said outer circumferential wall of said rim body so as to form an integral wheel of said rim body, wherein an outer circumferential surface of said safety rim forms as said running surface thereof for running on said road surface when said wheel tire is popped out from said rim body.

5        5.     The vehicle rim, as recited in claim 3, wherein said safety rim is integrally extended from said outer circumferential wall of said rim body so as to form an integral wheel of said rim body, wherein an outer circumferential surface of said safety rim forms as said running surface thereof for running on said road surface when said wheel tire is popped out from said rim body.

      6.     The vehicle rim, as recited in claim 4, wherein a width of said safety rim is gradually reducing from said outer circumferential wall of said rim body to said running surface.

10       7.     The vehicle rim, as recited in claim 5, wherein a width of said safety rim is gradually reducing from said outer circumferential wall of said rim body to said running surface.

15       8.     The vehicle rim, as recited in claim 1, wherein said safety rim, having a ring shaped, has an inner circumferential surface securely attached to said outer circumferential wall of said rim body and an outer circumferential surface forming as said running surface.

      9.     The vehicle rim, as recited in claim 3, wherein said safety rim, having a ring shaped, has an inner circumferential surface securely attached to said outer circumferential wall of said rim body and an outer circumferential surface forming as said running surface.

20       10.    The vehicle rim, as recited in claim 8, wherein a width of said safety rim is gradually reducing from said outer circumferential wall of said rim body to said running surface.

25       11.    The vehicle rim, as recited in claim 9, wherein a width of said safety rim is gradually reducing from said outer circumferential wall of said rim body to said running surface.

      12.    A vehicle wheel for a vehicle, comprising:

      a wheel tire having two beads and a tread adapted for running on a road surface; and

a rim body comprising a hub adapted for rotatably connecting to said vehicle, and a tire locking frame, having a U-shaped cross section, coaxially mounted with said hub, wherein said tire locking frame has an outer circumferential wall and two locking flanges radially extended from two side edges of said outer circumferential wall for substantially interlocking with said two beads of said wheel tire respectively, in such a manner that said rim body is coaxially and securely mounted to said wheel tire under a safety pressure so as to substantially support said tread of said wheel tire for running on said road surface; and

a safety rim, having a running surface, radially and outwardly extended from said rim body, wherein a circumference of said safety rim is larger than a circumference of each of said locking flanges of said tire locking frame and is smaller than a circumference of said tread of said wheel tire, such that said safety rim functions as a safety wheel to support said rim body for running said running surface on said road surface when said wheel tire is popped out from said rim body.

13. The vehicle wheel, as recited in claim 12, wherein said safety rim is radially and outwardly extended from said outer circumferential wall between said two locking flanges, wherein said running surface of said safety rim is coaxially positioned between a top edge of each of said locking flanges and said tread of said wheel tire.

14. The vehicle wheel, as recited in claim 13, wherein said running surface of said safety rim is a rounded surface adapted for substantially supporting said vehicle rim to run on said road surface when said wheel tire is popped out from said rim body.

15. The vehicle wheel, as recited in claim 12, wherein said safety rim is integrally extended from said outer circumferential wall of said rim body so as to form an integral wheel of said rim body, wherein an outer circumferential surface of said safety rim forms as said running surface thereof for running on said road surface when said wheel tire is popped out from said rim body.

16. The vehicle wheel, as recited in claim 14, wherein said safety rim is integrally extended from said outer circumferential wall of said rim body so as to form an integral wheel of said rim body, wherein an outer circumferential surface of said safety rim forms as said running surface thereof for running on said road surface when said wheel tire is popped out from said rim body.

17. The vehicle wheel, as recited in claim 15, wherein a width of said safety rim is gradually reducing from said outer circumferential wall of said rim body to said running surface.

5 18. The vehicle wheel, as recited in claim 16, wherein a width of said safety rim is gradually reducing from said outer circumferential wall of said rim body to said running surface t.

10 19. The vehicle wheel, as recited in claim 12, wherein said safety rim, having a ring shaped, has an inner circumferential surface securely attached to said outer circumferential wall of said rim body and an outer circumferential surface forming as said running surface.

20. The vehicle wheel, as recited in claim 14, wherein said safety rim, having a ring shaped, has an inner circumferential surface securely attached to said outer circumferential wall of said rim body and an outer circumferential surface forming as said running surface.

15 21. The vehicle wheel, as recited in claim 19, wherein a width of said safety rim is gradually reducing from said outer circumferential wall of said rim body to said running surface.

20 22. The vehicle wheel, as recited in claim 20, wherein a width of said safety rim is gradually reducing from said outer circumferential wall of said rim body to said running surface.